WE CLAIM AS OUR INVENTION:

1. A tissue marker delivery device comprising:

a tube having a lumen extending therethrough;

a tissue marker removably seated in a distal end of said tube;

a rod slidably located within said tube lumen and having a first end extending through a proximal end of tube and a second end in said tube lumen; and

an intermediate member separating said rod from said biopsy marker, where advancement of said rod in a distal direction displaces said intermediate member to displace said tissue marker from said marker seat.

2. The tissue marker delivery device of claim 1, where said intermediate member is discrete from both said rod and said tissue marker.

3. The tissue marker delivery device of claim 1, where said intermediate member comprises a flexible covering.

4. The tissue marker delivery device of claim 1, further comprising a fluid between said rod and said intermediate member, where advancement of said rod in a distal direction displaces said fluid member to displace said intermediate member.

5. The tissue marker delivery device of claim 1, further comprising a deployment lock having a portion removably attached to said tube, wherein when said portion contacts said rod, said rod is prevented from moving.

6. A biopsy marker delivery device for use with a biopsy probe having an aperture, said delivery device comprising:

a body having proximal and distal ends and a passageway extending therethrough;

an elongate sheath having a lumen extending therethrough, said sheath extending distally from said distal end of said body, said sheath lumen in fluid communication with said body passageway;

an access tube having a proximal and a distal end and a lumen extending from at least a portion of said access tube through said proximal end, said access tube slidably located within said body passageway and said sheath lumen;

a marker seat located towards said distal end of said access tube; and

a rod slidably located within said access tube lumen and having a first end extending through said proximal end of said body and a second end in communication with said marker seat, wherein advancement of said rod in a distal direction advances said marker seat distally;

wherein advancement of said rod in a distal direction advances said marker seat distally until said marker seat is adjacent to the probe aperture, whereupon further distal advancement said rod advances into said marker seat.

7. The delivery device of claim 6, wherein said body further comprises a keyway along said passageway, and said body having an orientation being defined relative to said keyway, said delivery device further comprising an access tube key located on said access tube and adapted to be slidably located within said body keyway, said access tube key adapted to maintain an orientation of said access tube with said body orientation.

8. The delivery device of claim 7, further comprising a delivery device key located on said body and adapted to seat in the biopsy probe and maintain an orientation of said access tube with an orientation of the biopsy probe.

9. The delivery device of claim 8, wherein a distal end of said outer sheath is immediately proximal to the biopsy probe aperture upon seating of the delivery device key in the biopsy probe.

10. The delivery device of claim 7, further comprising an access tube stop fixedly located on a portion of said access tube being located within said body, wherein advancement of said rod in a distal direction advances said marker seat distally until said access tube stop engages said distal end of said body preventing further distal movement of said access tube, whereupon further distal advancement said rod advances into said marker seat.

11. The delivery device of claim 10, further comprising a rod stop fixedly located on said rod, wherein after said rod is advanced into said marker seat, said rod stop engages said access tube stop preventing further distal movement of said rod.

12. The delivery device of claim 11, further comprising a rod key on said rod , said rod key adapted to maintain an orientation of said rod with said body orientation.

13. The delivery device of claim 12 wherein said rod key is located on said rod stop.

14. The delivery device of claim 10, wherein engagement of said access tube stop against said distal end of said body places said marker adjacent to the biopsy probe aperture.

15. The delivery device of claim 10, wherein said access tube key is located on said access tube stop.

16. The delivery device of claim 6, further comprising a deployment lock having a first end and a second end, said first end moveably located in said body and said second end located outside of said body, said first end adapted to engage a portion of said rod to prevent at least distal movement of said rod, whereupon disengagement of said first end of said deployment lock from said portion of said rod permits distal movement of said rod.

17. The delivery device of claim 16, further comprising a rod stop fixedly located on said rod, wherein said first end of said deployment lock engages said rod stop, and wherein after said rod is advanced into said marker seat, said rod stop engages said access tube stop preventing further distal movement of said rod.

18. The delivery device of claim 16, wherein said deployment lock is adapted to be removed from said body.

19. The delivery device of claim 16, wherein said deployment lock further comprises at least one securing arm adapted to removably engage said body.

20. The delivery device of claim 6, further comprising a delivery device key located on said sheath and adapted to seat in the biopsy probe and maintain an orientation of said access tube with an orientation of the biopsy probe.

21. The delivery device of claim 6, further comprising a biopsy marker placed in said marker seat and wherein said distal end of said access tube is closed such that said biopsy marker is prevented from moving distally in said access tube.

22. The delivery device of claim 6, wherein a portion of said distal end of said access tube is removed to define said marker seat, said delivery device further

comprising a flexible covering located over at least said marker seat, where at least a portion of said covering is adapted to displace into and out of said marker seat, wherein movement of said rod into said marker seat displaces said flexible covering out of said marker seat.

23. The delivery device of claim 22, further comprising a biopsy marker seated on said flexible covering and in said marker seat.

24. The delivery device of claim 22, wherein said flexible covering comprises PET.

25. A delivery device for use with a biopsy probe having an aperture, said delivery device comprising:

a body having a proximal and distal ends and a passageway extending therethrough, said body having a keyway along said passageway, said body having an orientation defined relative to said keyway;

an elongate sheath having a lumen extending therethrough, said sheath extending distally from said distal end of said body, said sheath lumen in fluid communication with said body passageway;

an access tube having a proximal and a distal end and a lumen extending from at least a portion of said access tube through said proximal end, said access tube slidably located within said body passageway and said sheath lumen, a portion of said distal end of said access tube being removed to define a marker seat;

an access tube key located on said access tube and adapted to be slidably located within said body keyway, said access tube key adapted to maintain an orientation of said access tube with said body orientation;

a flexible covering located over at least said marker seat, where at least a portion of said covering is adapted to displace into and out of said marker seat;

a rod slidably located within said access tube lumen and having a first end

extending through said proximal end of said body and a second end in communication with said marker seat, wherein advancement of said rod in a distal direction advances said marker seat distally until said marker seat is adjacent to the probe aperture, whereupon further distal advancement said rod advances into said marker seat displacing said flexible covering out of said marker seat.

26. The delivery device of claim 25, further comprising a delivery device key located on said sheath and adapted to seat in the biopsy probe and maintain an orientation of said access tube with an orientation of the biopsy probe.

27. The delivery device of claim 26, wherein a distal end of said outer sheath is immediately proximal to the biopsy probe aperture upon seating of the delivery device key in the biopsy probe.

28. The delivery device of claim 25, further comprising a delivery device key located on said sheath and adapted to seat in the biopsy probe and maintain an orientation of said access tube with an orientation of the biopsy probe.

29. The delivery device of claim 25, further comprising a rod stop fixedly located on said rod, wherein after said rod is advanced into said marker seat, said rod stop engages said access tube stop preventing further distal movement of said rod.

30. The delivery device of claim 29, further comprising a rod key on said rod, said rod key adapted to maintain an orientation of said rod with said body orientation.

31. The delivery device of claim 25, further comprising a deployment lock having a first end and a second end, said first end moveably located in said body and said second end located outside of said body, said first end adapted to engage a portion

of said rod to prevent at least distal movement of said rod, whereupon disengagement of said first end of said deployment lock from said portion of said rod permits distal movement of said rod.

32. The delivery device of claim 31, wherein said deployment lock is adapted to be removed from said body.

33. The delivery device of claim 31, wherein said deployment lock further comprises at least one securing arm adapted to removably engage said body.

34. The delivery device of claim 25, further comprising a biopsy marker seated on said flexible covering and in said marker seat.

35. The delivery device of claim 25, wherein said flexible covering comprises PET.

36. The delivery device of claim 25, further comprising an access tube stop fixedly located on a portion of said access tube being located within said body, wherein advancement of said rod in a distal direction advances said marker seat distally until said access tube stop engages said distal end of said body preventing further distal movement of said access tube, whereupon further distal advancement said rod advances into said marker seat.

37. The delivery device of claim 36, wherein engagement of said access tube stop against said distal end of said body places said marker seat adjacent to the biopsy probe aperture.

38. The delivery device of claim 36, wherein said access tube key is located on said access tube stop.

39. A delivery device for use with a biopsy probe having an aperture, said delivery device comprising:

a body having proximal and distal ends and a passageway extending therethrough;

an elongate sheath having a lumen extending therethrough, said sheath extending distally from said distal end of said body, said sheath lumen in fluid communication with said body passageway;

an access tube having a proximal and a distal end and a lumen extending from at least a portion of said access tube through said proximal end, said access tube slidably located within said body passageway and said sheath lumen;

a portion of said distal end of said access tube is removed to define a marker seat;

a flexible covering located over at least said marker seat, where at least a portion of said covering is adapted to displace into and out of said marker seat; and

a fluid located within said access tube lumen in said marker seat; said fluid in communication with said flexible covering where displacement of said fluid displaces said flexible covering out of said marker seat.

40. The delivery device of claim 39, where displacement of said fluid also advances said marker seat.

41. The delivery device of claim 39, further comprising a rod slidably located within said access tube lumen and having a first end extending through said proximal end of said body and a second end in communication with said fluid.

42. The delivery device of claim 39, where said fluid extends through said proximal end of said access tube.

43. The delivery device of claim 42, further comprising a syringe in communication with said proximal end of said access tube, said syringe adapted to displace said fluid.

44. A kit comprising:
a biopsy marker delivery device as recited in any of claims 1-43; and
an introducer cannula.

45. The kit of claim 44, further comprising a biopsy probe.

46. The kit of claim 45, where said biopsy probe is a spring-loaded biopsy probe.

47. A method for marking a biopsy cavity using a delivery device having a marker, a tube removably seating the marker, a rod within the tube, and an intermediate member separating the rod and the marker, the method comprising:
advancing the marker and delivery device to the biopsy cavity;
actuating the rod to displace the intermediate member on the delivery device; and
depositing the marker in the cavity upon displacing the intermediate member.